

CLAIMS

1. A nucleic acid molecule comprising a chimeric virus genome, said genome being a BVDV genome in which the structural region of the BVDV genome has been replaced by the structural region of a hepatitis C virus genome.

2. The nucleic acid molecule of claim 1, wherein at least one gene from the structural region of the BVDV genome has been replaced by the corresponding gene from the structural region of a hepatitis C virus genome.

3. The nucleic acid molecule of claim 2, wherein the gene from the structural region is selected from the group consisting of E1, E2 or C.

4. The nucleic acid molecule of claim 2, wherein the E1 and E2 genes from the structural region of the BVDV genome have been replaced by the E1 and E2 genes of a hepatitis C virus genome.

5. The nucleic acid molecule of claim 2, wherein the E1 gene from the structural region of the BVDV genome has been replaced by the E1 gene of a hepatitis C virus genome.

6. The nucleic acid molecule of claim 2, wherein the E2 gene from the structural regions of the BVDV genome has been replaced by the E2 gene of a hepatitis C virus genome.

7. A nucleic acid molecule comprising a chimeric virus genome, said genome being a BVDV genome in which the non-structural region of the BVDV genome

° has been replaced by the non-structural region of a hepatitis C virus genome.

8. The nucleic acid molecule of claim 7, wherein at least one gene from the non-structural region of the BVDV genome has been replaced by the
5 corresponding gene from the non-structural region of a hepatitis C virus genome.

9. A DNA construct comprising the nucleic acid molecule of claims 1, 2 or 7.
10

10. An RNA transcript of the DNA construct of claim 9.

11. A polypeptide encoded by the nucleic acid molecule according to claim 1.
15

12. A polypeptide encoded by the nucleic acid molecule according to claim 2.

13. The polypeptide according to claim 12, wherein said polypeptide is selected from the group consisting of E1, E2 or C.
20

14. A host cell transfected with the DNA construct of claim 9.

15. A host cell transfected with the RNA transcript of claim 10.
25

16. A chimeric HCV-BVDV virus produced by transfecting a host cell with the DNA construct of claim 9.
30

17. A chimeric HCV-BVDV virus produced by transfecting a host cell with the RNA transcript of claim 10.
35

18. A cell infected with the virus of claim
16.

19. A cell infected with the virus of claim
17.

20. A composition comprising the virus of
claims 16 or 17 in a suitable excipient, diluent or
carrier.

21. The nucleic acid molecule of claims 1, 2
or 7, wherein the hepatitis C virus genome is an
infectious hepatitis C virus genome.

15

20

25

30

35